FIG.1
(PRIOR ART)

FIG.2
(PRIOR ART)

NETWORK ADDRESS	PORTS
A	1
M	3
N	3
H	2
F	2
J	2

FIG.3

PORT

74

50

TEMPORARY PACKET STORAGE 62

PACKET ANALYSIS & KEY EXTRACTION 64

CONTENT-BASE FORWARDING LOGIC 60

SEARCH ENGINE 68

MEMORY 58

MERGE LOGIC 70

FORWARDING DECISION LOGIC 72

SWITCH FABRIC 76

SWITCH FABRIC CONTROL 78

TO PORTS

FIG.4

Attorney: Josephine E Chang
Docket No.: 47377/JEC/X2
Inventor(s): Jayasenan Sundara Ganesh
Title: Content-Based Forwarding/Filtering in a
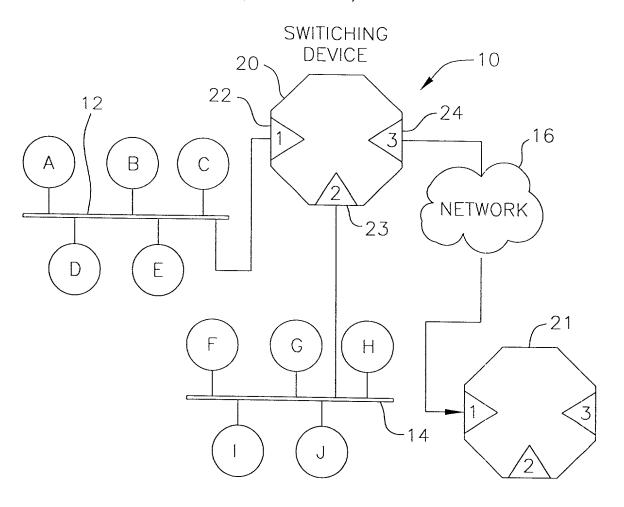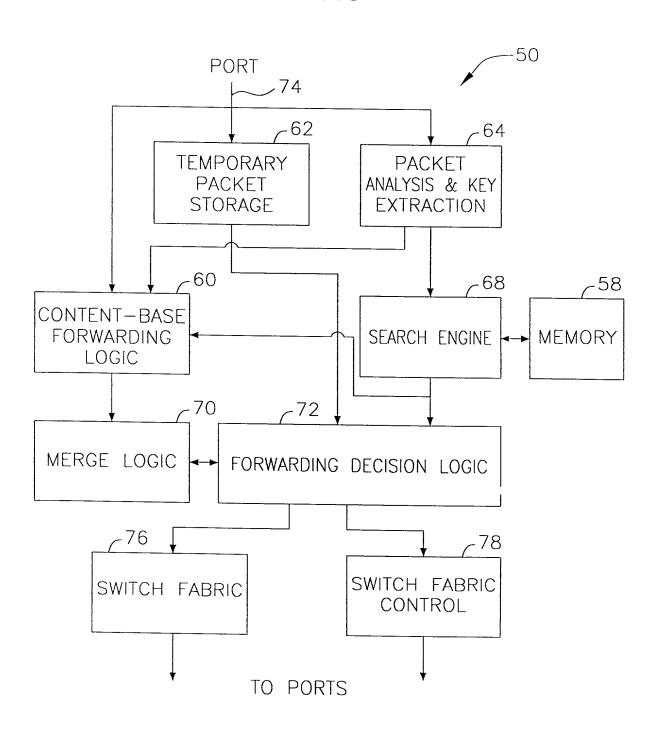Network Switching Device
Sheet 4 of 9

FIG.5

Attorney: Josephine E. Chang
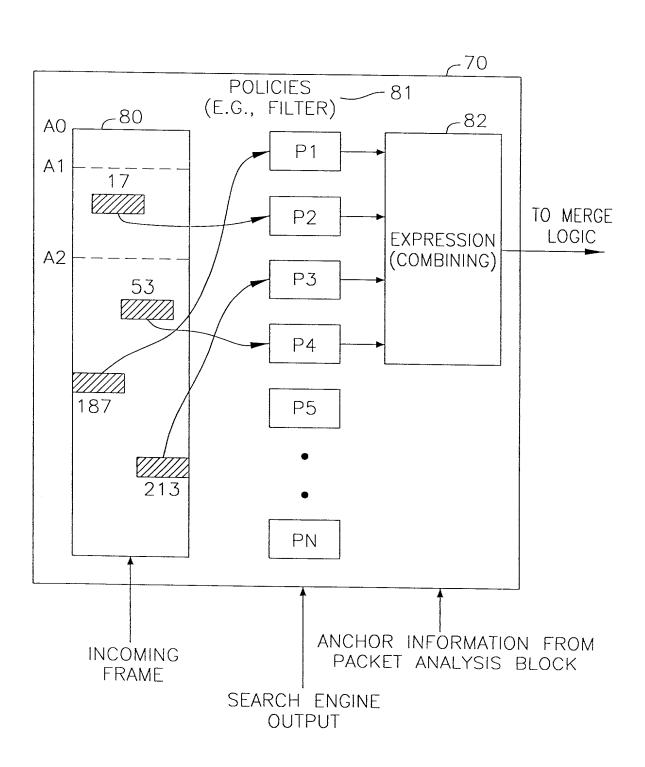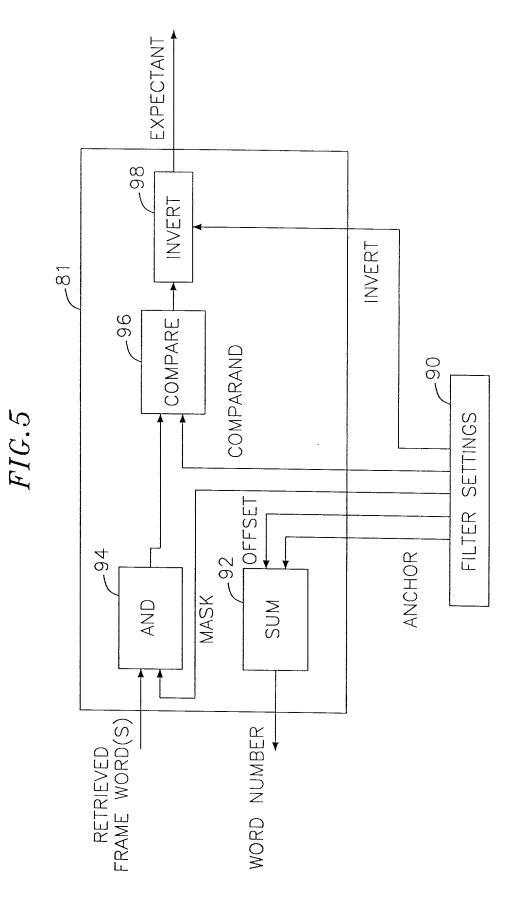Docket No.: 47377/JEC/X2
Inventor(s): Jayasenan Sundara Ganesh
Title: Content-Based Forwarding/Filtering in a
Network Switching Device
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FIG.6A

SUCH AS PRIORITY, PORT GROUP(HANDLE), EDITING(E.G., SOURCE ADDRESS OR DESTINATION ADDRESS BEING REPLACED OR IP ADDRESS BEING REPLACED).
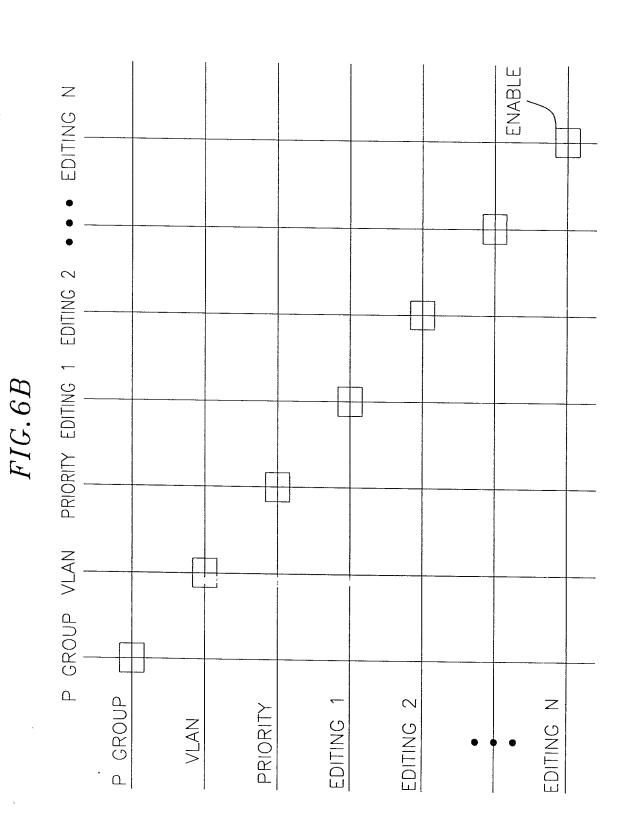
70

1,3,5,7

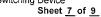R1cbfd(FROM CONTENT-BASED FORWARDING) 1,3,5
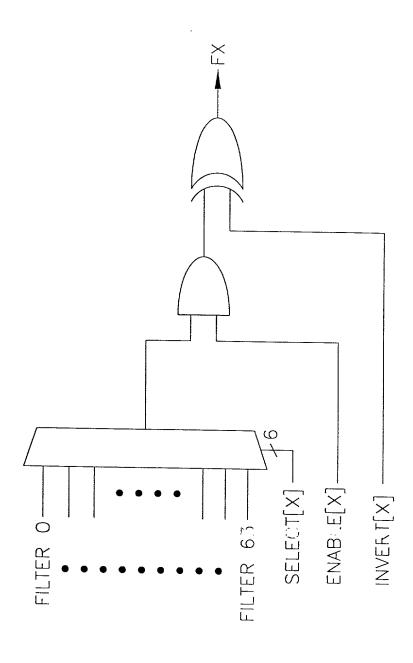
R1Lv(FROM REGULAR LOOKUP) 1,3,7

CONTROL
(PRECEDENCE(TOP OR BOTTOM);
FAVAILABLE;
BIGGER;
SMALLER;

UNION OF BOTH IF MUTUALLY EXCLUSIVE;
BLOCK IF NO MATCH)

Attorney: Josephine E. Chang
Docket No.: 47377/JEC/X2
Inventor(s): Jayasenan Sundara Ganesh
Title: Content-Based Forwarding/Filtering in a
Network Switching Device
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FIG.6B

	P GROUP	VLAN	PRIORITY	EDITING 1	EDITING 2	• • •	EDITING N
P GROUP	☐						
VLAN		☐					
PRIORITY			☐				
EDITING 1				☐			
EDITING 2					☐		
• • •							
EDITING N							☐ ENABLE

Attorney: Josephine E. Chang
Docket No.: 47377/JEC/X2
Inventor(s): Jayasenan Sundara Ganesh
Title: Content-Based Forwarding/Filtering in a
Network Switching Device
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FIG.7

Attorney: Josephine E. Chang
Docket No.: 47377/JEC/X2
Inventor(s): Jayasenan Sundara Ganesh
Title: Content-Based Forwarding/Filtering in a
Network Switching Device
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FIG.8

Attorney: Josephine E. Chang
Docket No.: 47377/JEC/X2
Inventor(s): Jayasenan Sundara Ganesh
Title: Content-Based Forwarding/Filtering in a
Network Switching Device
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FIG.9